

The different states of this species may be characterized as follows:—

*Striatella teniaformis*.

α. Frustules without transverse striæ.

β. *striata*. Frustules with longitudinal series of transverse striæ; the two longitudinal striæ on each side have a single curve near the base. Pl. IX. fig. 5. β.

γ. *serpentina*. Frustules with longitudinal series of transverse striæ, the longitudinal striæ on each side undulated. Pl. IX. fig. 5. γ.

α. Common. β. Torquay, Mrs. Griffiths. γ. Torquay, Mrs. Griffiths; Hastings, Mr. Jenner.

In the variety γ. there is also in general a narrow longitudinal space without any markings, and appearing like a white band occupying the centre.

In the remarks on *Striatella unipunctata* I observed that there were two series of striæ. I have since examined this subject more minutely, and find the same structure in *Tabellaria*, *Striatella*, *Tessella* and *Tetracyclus*. The appearance of longitudinal striæ is in fact produced by siliceous plates arising internally from the margins of the filament, and extending towards but not reaching the centre. The interior is thus divided into chambers opening into a central space. When viewed laterally, this central space has the appearance of a canal, especially as the inner edge of each plate has a concave outline. This appearance is more striking in *Tabellaria*, *Striatella teniaformis* and *Tetracyclus lacustris*, where all the plates are nearly equal; but in *Striatella arcuata*, *S. unipunctata* and *Tessella catena* they are shortest near the angles, and gradually longer as they approach the middle. In the latter the outlines of two plates are frequently seen at one time when viewed laterally, in consequence of the unequal size of the plates. Plate IX. fig. 6. c.

[To be continued.]

#### BIBLIOGRAPHICAL NOTICES.

*The Zoology of the Voyage of H.M.S. Sulphur, under the Command of Capt. Sir Edward Belcher, R.N. &c., during the years 1836–42. Published under the authority &c.* Edited and superintended by Richard Brinsley Hinds, Esq., Surgeon R.N. attached to the Expedition.—*Mammalia*, by John Edward Gray, Esq., F.R.S. No. I. London, Smith, Elder and Co., 4to. 1843.

By the attention of the author or publishers, we have now before us the first part of the "*Zoology of the Voyage of H.M.S. Sulphur*." This is one of the series of zoological works arising from our Voyages of Discovery, published under the patronage of "the Lords Commissioners of the Admiralty:" as such we wish it success, and as public

property we feel ourselves at liberty to speak freely of it. Long before the British Government gave assistance to works of this kind, we were of opinion that it ought to have been granted: we had the example before us of many continental works sumptuously published at an expense which few private individuals could have defrayed, while in this country our splendid examples were all completed at the risk either of wealthy gentlemen, or by the enterprise of publishers to whom a limited patronage had been secured, but frequently resulting in inconvenience to both parties. The beautiful volumes of the Northern Zoology were, we believe, the first to which a Government grant was given in this country, and the work was singularly fortunate in having men employed on it who were not only naturalists of the highest standing, but were also artists, or capable of judging of art. The more recent grants have been given to the publications of Smith, Elder and Co., the publishers employed to bring out the results of one or two of the later voyages, and they are now continued with that for the work before us. The plan in all these later works has been, we believe, to delegate the different departments to men who have made them their particular study; the publishers having the control of the expense and risk, and we presume the benefit of the Government grant, and for this the public receive the work at a price said to be cheaper than that at which it otherwise could have been published. We have always considered that the Government should maintain a greater control over these works, or should give a portion at least of their grant in a subscription for a certain number of copies; the public are comparatively little benefited by the small reduction of the price of the Numbers, for we do not consider ten shillings for nine plates (one of them uncoloured) and a very limited letter-press so great a bargain. The present work will, when completed, cost at least six pounds sterling unbound, and can only be expected to be found in the possession of a few interested in the subjects, or in one or two of our principal libraries; while by the Government giving their grant in the form of a subscription, and sending their copies to provincial libraries whose funds would not allow them to devote so much to one work in a single branch of science, the extension of a taste for natural history would be spread, the knowledge of it diffused, and the public would at the same time receive some value for their grant. There are many publishers both in England and in Scotland who would at once take the risk, and bring out these works in the first style of art, were the sale of one hundred or one hundred and fifty copies guaranteed to them by Government\*.

The voyage of the Sulphur embraced a range so extensive, that many interesting objects might be expected to have been discovered; accordingly in the first Number, devoted to Mammalia, and under the direction of J. E. Gray, Esq., we have figures of *Brachy-*

\* We do not know the amount of the grant for the present work, but to the former publications of Smith, Elder and Co., we believe the liberal sum of 3000*l.* was given. A subscription for 150 copies of the present work would not exceed the amount of a proportional grant.

*teles frontatus*, from the shores of the harbour of Culebra; *Pithecia leucocephala* and *pogonias* contrasted on the same plate, the latter considered as new; and *P. irrorata*, allied to the *P. hirsuta* of Spix; *Lemur coronatus* from Madagascar, differing from *L. rufifrons*, Benn., in having the black streak on the head expanded between the eyes and continued to the end of the nose, the under part of the base of the tail being also black; *Phyllophora megalotis* and *nigra*, previously not figured, from tropical America; *Phyllostoma elongatum*, from tropical America, also not before figured; *Carollia verrucata*, from tropical America—all these are described. But we have also figures of *Sturnira Spectrum*, *Neosia nigrescens*, *Centurio Senex* from Amboina; and *Diclidurus Freyreissii*, of which we presume the descriptions will appear in the following numbers.

The plates in this number are well executed, superior to some of the modern works in drawing, at the same time inferior to others as artistical pictures; the colouring is also careful, but wants harmony: where trees or foliage are introduced, the slightest wash or tint, without an attempt to finish, would harmonize with the colouring of the animals and take off the rawness incident to the severe contrast of the white paper, in the same way that the tint of the sky has assisted to do in several of the plates. In plate 2 we see no reason why the head looking round the tree should have the sole benefit of the blue; a tint upon the branch and other parts would have improved the picture. Let Mr. Hawkins, in the next number, insist that justice be done to his careful lithographs. The same remarks apply to the other plates except 7 and 8, where nothing pictorial is attempted, and where the figures should stand as exact representations without other assistance.

*A History of the Molluscous Animals of the counties of Aberdeen, Kincardine and Banff; to which is appended an account of the Cirripedal Animals of the same District.* By William Macgillivray, A.M., Professor of Natural History in the University of Marischal College, Aberdeen, &c. Lond. 1843. Duod. pp. 372.

We are not going to review this volume, but we are anxious to introduce it to the notice of our readers. The name and reputation of the author led us to expect a work of interest and originality—not fashioned on a mould that others had cast and approved—but bearing the impress of a mind that could track a course of its own, and much more willing to follow it than walk at greater ease in a beaten path. And we have not been disappointed, for indeed we have rarely spent a pleasanter hour than the one which we last night devoted to the perusal of this little manual. It is the work of a good workman—the best local fauna in our language—a sure and pleasant guide to the naturalists of the counties illustrated—with many a fact that concerns all those who are interested in the study of the British Mollusca. It boots little to us that it contains descriptions of some thirty new species—two or three of them really fine additions to our native list, and which we greet heartily—but we admire these new descriptions of many an old friend and acquaintance, and these ad-

ditional traits of their habits and structural peculiarities. Mr. Macgillivray has observed much, and what he has observed he has told well. There is, perhaps, a claim made to a greater degree of originality in these than a critical survey would altogether allow in equity; but what is not new has been elaborated and kneaded together by one whom personal experience had taught to know the genuineness of the materials he was handling. Let any one examine the family and generic characters of the book with care, and we think the justice of our remark will be allowed: they are excellently well done. We are, however, inclined to blame some unnecessary innovations in nomenclature; to differ from our talented author in the application of some few names; to wish that the sources whence the characters of the genera were taken had been more often and precisely quoted; and to smile good-naturedly (are we not fathers?) on the paternal storgè which pullulates forth with rather a too frequent and rash growth in the mention of all and every the leetle Macgillivrays—God bless them—Miss and Marion, Isabella and Anne, “my son” John, and not forgetting Paul-Howard and the rest of the family.

We end as we began—by our hearty recommendation of the book to our readers. To all who concern themselves in making a ‘population return’ of the molluscan natives the work is indispensable; and for the value of six shillings they have here matter which some peddling dilettanti might have been excused had he published as much for a guinea sterling.

*Annales des Sciences Naturelles*:—*Zoologie*, M. Milne Edwards. *Botanique*, MM. Ad. Brongniart et Guillemin. Paris: Fortin, Masson and Co.

Jan. 1843.—*Zoology*.—Some Observations on the *Ongulinae*, by M. Deshayes. M. Duvernoy, in his account of the animal of *Ongulina*, proposed the removal of that genus from the neighbourhood of the *Lucinae* to that of the *Mytilaceae*. M. Deshayes, in this paper, approves such a change, pointing out that M. Duvernoy’s animal is a true *Lucina*, and that the structure of its branchiæ, separated at their anterior margin and united elsewhere, is after all rather a specific than a generic anatomical distinction. M. Deshayes’ arguments are sound throughout this paper.—On the Ravages of *Scolytus pygmaeus* among Ash and Oak Trees, and on the proposed Remedies, by M. Robert. The author proposes two antidotes to the destruction caused by this pestiferous insect: 1st, to varnish the bark of trees affected; and 2nd, to make longitudinal and oblique incisions at regular distances in the bark.—M. Poiseulle on the Flux of Liquids in the Living Capillaries.—On the habits, development and metamorphoses of *Caridina Desmarestii*, with reflections on the metamorphoses of Decapodous Crustacea generally, by M. Joly (commencement).

*Botany*.—On the Temperature of Plants, by Professor Rameaux. A summary of what has been done on this subject, with an account of the author’s own observations, and elaborate tables.—M. Decaisne on *Drymispermum*, *Pseudais*, and *Gyrinopsis*.—Count Jaubert and Ed. Spach on the *Argyrolobia* of the Northern Hemisphere.—The

Ninth and Tenth Decades of the Third Century of New Exotic Cellular Plants, by Dr. Montagne. The portion of these valuable papers in this Number is occupied by descriptions of the Lichens of Guiana.

## WORKS JUST PUBLISHED.

*Arcana Entomologica; or, Illustrations of New, Rare, and Interesting Insects.* By J. O. Westwood, F.L.S., Sec. Ent. Soc. London, &c.

The first volume, containing 48 coloured plates, of this work, which was established with the view of describing and figuring some of the many interesting and splendid novelties with which our entomological collections have, within the last few years, been so greatly enriched, is now completed.

The plates comprise 176 coloured figures, of which nearly 160 are representatives of insects now for the first time given to the scientific world, or of which no previous figures existed. The work is to be continued in each alternate month.

*Manual of British Botany.* By Charles C. Babington, M.A., F.L.S., F.G.S. &c.

Containing generic and specific characters of British plants, in one volume, 12mo, as a travelling companion.

## PROCEEDINGS OF LEARNED SOCIETIES.

## LINNÆAN SOCIETY.

December 20, 1842.—E. Forster, Esq., V.P., in the Chair.

A. H. Hassall, Esq., exhibited an Apple in which decay had been artificially induced by inoculating it with decayed matter from another apple containing filaments of Entophytal *Fungi*.

“Some further Observations on the Nature of the *Ergot* of Grasses.” By Edwin John Quekett, Esq., F.L.S.

This paper contains the results of experiments made by the author with the view of determining the mode in which the sporidia of the fungus which he regards as the cause of *Ergot* are introduced into the infected grass.

In March 1840 twelve healthy grains of rye, of wheat and of barley were placed in a shallow glass vessel containing a sufficient quantity of distilled water to moisten them, and covered with a glass shade. When germination commenced an ergot of wheat of the preceding year was immersed in the water, the sporidia on its surface were detached, and the ergot itself was then removed. The same experiment was performed with sporidia obtained from an ergot of *Elymus sabulosus*. Several days afterwards, when the leaves had attained a length of three or four inches, the young plants were conveyed into the country and planted side by side in a garden. At the period of harvest there remained alive only four plants of the rye (one of which had been infected from the ergot of *Elymus*, and the